Regional Wind power Issues Workshop

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Retail Market Barriers and Outlets for Wind Power

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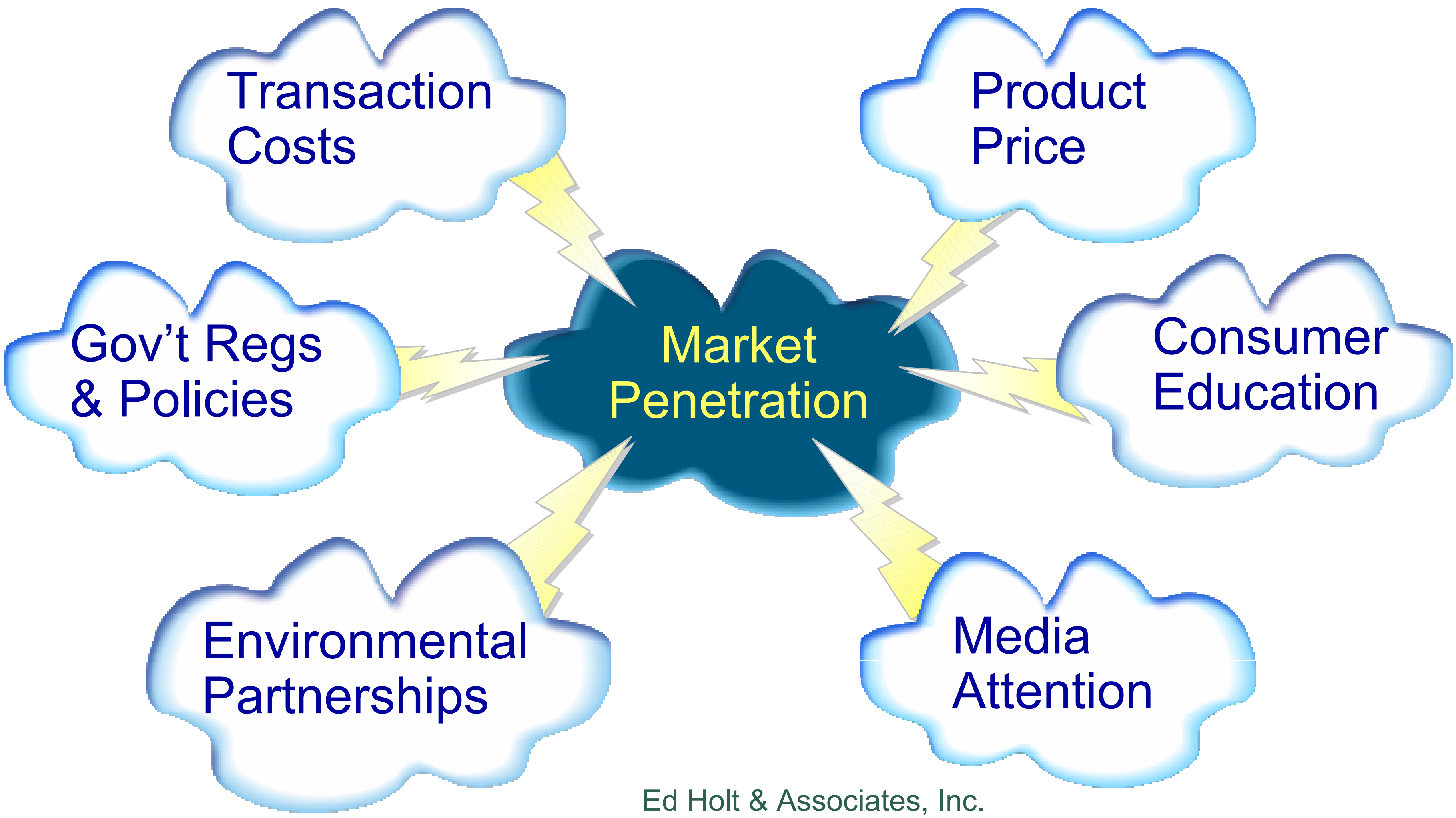
Barriers to Demand

- Market fundamentals
  - especially default service price
- Customer acquisition cost
- Cost of green power
- Consumer fears--CA syndrome?
- Lack of consumer understanding of the environmental problem
- Lack of renewable energy policy incentives

Influencing Factors



Standard Offers

- Most standard offers have been too low relative to wholesale prices
  - Retailer marketers can’t compete
- MA and RI standard offers are rising; most of Maine will increase March 2002
- Most standard offers will expire eventually--customers will face the market

Market Prices & Standard Offers Compared

Green Standard Offers?

- IEPM and others have proposed a standard offer green option
- *Caution:* Don't kill the potential for a competitive market
  - Don't give consumers another reason not to choose a competitive supplier
- ➔ Support green standard offer only if competitively bid (separate from brown standard offer) for a year or two at most
- If green std offer is high enough, then other green marketers may be attracted

Voluntary Aggregations

- Maine Interfaith Power & Light
  - 1000 members, RFP released seeking supply
- Episcopal Power & Light
  - seeking supply in CT, MA; organizing in NH, VT
- Mass. Renewable Energy Trust - 9 awards to consumer aggregation groups
- see also NREL's "Customer Aggregation: An Opportunity for Green Power?"
  - www.eren.doe.gov/greenpower

Policy Affects Consumer Demand

Incentives for generation →	Lower price for green power
Incentives for selling RE →	Lower price for green power
State purchase mandates →	Increases demand
Fund support for aggregation →	Lower customer acquisition cost for marketers
Support for “opt-out” aggregation →	Easier for local government to aggregate
Financial support for green marketers →	Cheaper marketing campaigns, lower prices
State education efforts →	Increased willingness to switch, awareness of environmental rationale
? RPS →	Level playing field? Additional to consumer demand?

Tradable Renewable Certificates

- Divides generation into 2 products:
  - generic commodity electricity
  - attributes (ex. resource, age, emissions, location)
- Retailers may bundle them with electricity, or sell them unbundled as a unique product
- Price represents the premium value markets place on green power
- Because not tied to power delivery, TRCs may be bought from anywhere--location may become more relevant to consumers

TRC Guidelines

- NWCC opportunities and guidelines
  - www.nationalwind.org (under publications)
  - disaggregation of attributes?
- Green-e drafting certification criteria
  - Only “new” renewable generation
  - Will not certify TRCs from mandated renewables
  - Facilities that receive financial help are eligible
  - Disclosure label states renewable certificates, not energy
- Be explicit about who owns attributes

Who's Selling Certificates?

- PG&E National Energy Group
- Bonneville Environmental Foundation
- Sterling Planet
- Environmental Resources Trust
- Waverly (Iowa) Light & Power
- Navitas Energy

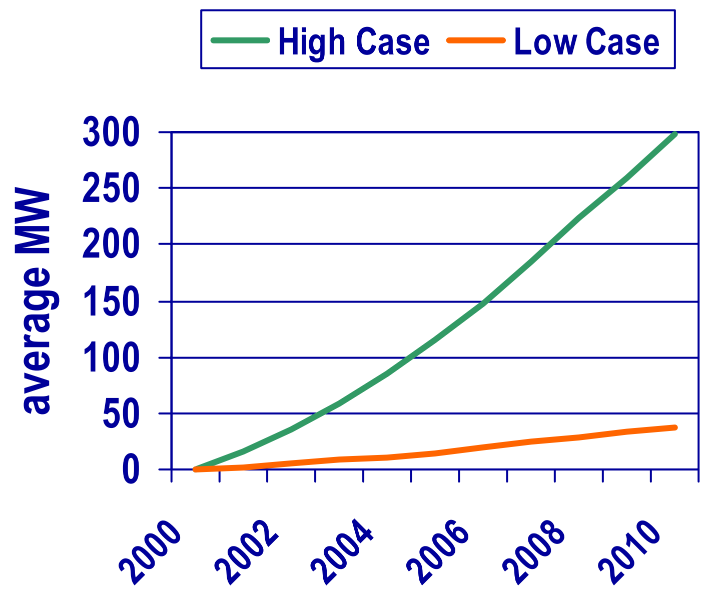
Business Demand is Growing

- Green Power Market Development Group
- EPA Green Power Partnership
- Regional recognition programs
  - Clean Power Challenge in PNW
  - How about a joint New England program sponsored by states, funds, NGOs?
- see also "Understanding Non-Residential Demand for Green Power"
  - www.nationalwind.org

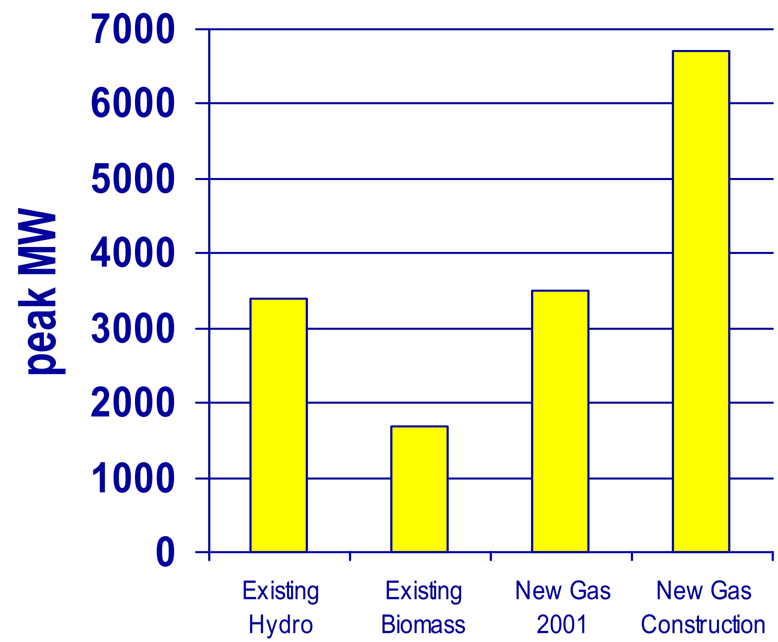
Demand in Perspective

Potential demand is swamped by existing renewables and new gas

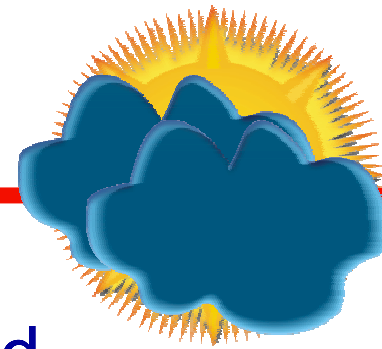
Potential Consumer Demand Growth



Existing Renewables, New Gas



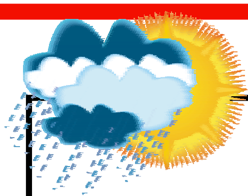
Today's Weather



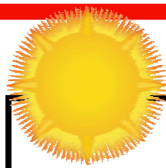
- Snow over most of New England--sunny breaks in CT
- Green power market remains small
- Need for competitive markets (or utility green option in VT)
- Consumer education needed
- Large customers are recognizing opportunity

Three Year Forecast

- Low standard offers
- No real competition
- Few marketers
- Consumer inertia



- Aggregations show the way
- RPS fixed in CT and ME
- Rising default pricing reflects retail costs
- Stable markets
- NE GIS begins, supports TRCs



- Competitive suppliers enter markets
- Expanded access to green power
- Aggressive promotion
- Disclosure and certification
- Patience and tenacity